BRUHAT BANGALURU MAHANAGARA PALIKE

Name of Work: Improvements Roads and Drains at Thirumenhalli Colony in Ward No. 05

Job code: 005-20-000118

Est Cost in Lakhs 100.00

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	4.2.8.1(2) Dismantling of existing structures like culverts, bridges, retaining walls and other structures comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cement Concrete Grade M-15 & M-20. MORTH Specification No. 202. (P.No. 139, I.No. 18.20 of CSR 2018-19)								
	4.2.8.1(2) Road Dismantling	Cum							
	Main Road		1	120.00	4.50	0.20	108.00		
	Cross Road		1	140.00	5.50	0.20	154.00		
	Cross Road		1	110.00	5.00	0.20	110.00		
	Cross Road		1	55.00	3.30	0.20	36.30		
							408.30	501.38	**204713.45**
	Basic rate	**390.00**							
	Loading and unloading with 10km lead= 57+2.0x1.3x10 = 83.00	**83.00**							
	Area Weightage 6%	**28.38**							
	Total	**501.38**							
2	4.2.8.1(4) Excavation for roadwork in all types of soil by mechanical means including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2018-19)								
	Road Portion	Cum							
	Main Road								
	Cross Road		1	120.00	4.50	0.30	162.00		
	Cross Road		1	140.00	5.50	0.30	231.00		
	Cross Road		1	110.00	5.00	0.30	165.00		
	Cross Road		1	55.00	3.30	0.30	54.45		
	Side Drain								
	Cross Road		1	120.00	1.10	1.20	158.40		
	Cross Road		1	140.00	1.10	1.20	184.80		
	Cross Road		1	110.00	1.10	1.20	145.20		
	Cross Road		2	55.00	1.10	1.20	145.20		
	Side Culverts		5	12.00	1.40	1.60	134.40		
			2	9.00	1.40	1.60	40.32		
	Kerb Line Restoration								
	Cross Road		1	120.00	1.00	0.65	78.00		
	Cross Road		1	110.00	1.00	0.65	71.50		
	Construction Earth		1	50.00	0.60	0.30	9.00		
							1579.27	128.30	**202620.34**
	Basic rate	**41.00**							
	Loading and unloading with 10km lead= 57+2.0x1.28x9 = 80.04	**80.04**							
	Area Weightage 6%	**7.26**							
	Total	**128.30**							

	[illegible] Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. Specification No. 4.2(P.No.13, I.No.4.2 of PW, P&IWTD SR 2018-19)								
	PCC-Bed	Sqm							
	New RCC Drain								
	W4(E10)Cross Road		1	120.00	1.10	0.15	19.80		
	W4(E15)Cross Road		1	140.00	1.10	0.15	23.10		
	W(209)Cross Road		1	110.00	1.10	0.15	18.15		
	Cross Road		2	55.00	1.10	0.15	18.15		
	New RCC Culverts		5	12.00	1.40	0.20	16.80		
			2	9.00	1.40	0.20	5.04		
							101.04	5505.64	**556289.87**
	Basic rate	**5194.00**							
	Area Weightage 6%	**311.64**							
	Total	**5505.64**							
	Providing laying plain/ reinforced cement concrete for side drains using M20 nominal mix concrete with OPC in 360 kgs. With 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.46cum machine mixed, well compacted for walls and bottom including centring, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specification 15cm wall and bottom thickness (P.No.275, I.No.37.59.2 of PW, P&IWTD SR 2018-19)								
	New RCC Drain	Cum							
	Raft Concrete								
	W4(E10)Cross Road		1	120.00	0.90	0.15	16.20		
	W4(E15)Cross Road		1	140.00	0.90	0.15	18.90		
	W(209)Cross Road		1	110.00	0.90	0.15	14.85		
	Cross Road		2	55.00	0.90	0.15	14.85		
	Wall Concrete								
	W4(E10)Cross Road		2	120.00	0.15	0.90	32.40		
	W4(E15)Cross Road		2	140.00	0.15	0.90	37.80		
	W(209)Cross Road		2	110.00	0.15	0.90	29.70		
	Cross Road		4	55.00	0.15	0.90	29.70		
							194.40	7070.20	**1374446.88**
	Basic rate	**6670.00**							
	Area Weightage 6%	**400.20**							
	Total	**7070.20**							
	[illegible] Providing and laying in position plain/Reinforced cement cement concrete M20 for sub structure/Superstructure works, with cement @ 320 kgs, 20 mm & down size graded granite metal coarse aggregate @ 0.69 cum and fine aggregates @ 0.46 cum machine mixed with super plasticisers @ 3 lts confirming to IS 9103-2008,concrete laid in layers, well compacted and providing weep holes wherever necessary with necessary scaffolding, form work etc., including cost of labour, HOM curing etc., complete. (P.No.257, I.No.34.17 of PW, P&IWTD SR 2018-19)								
	New RCC Culverts	Cum							
	Raft Concrete								
			5	12.00	1.20	0.20	14.40		
			2	9.00	1.20	0.20	4.32		
	Wall Concrete								
			10	12.00	0.20	1.20	28.80		
			4	9.00	0.20	1.20	8.64		
							56.16	5277.74	**296397.88**
	Basic rate	**4979.00**							
	Area Weightage 6%	**298.74**							
	Total	**5277.74**							

Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.1 (P.No.16, I.No.4.28 of PW,P&IWTD SR 2018-19)

New RCC Culverts	Sqm							
Wall Concrete								
		10	12.00		0.20	24.00		
		4	9.00		0.20	7.20		
Basic rate	258.00					**31.20**	273.48	**8532.58**
Item Weightage 6%	**15.48**							
Total	**273.48**							

Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses, cost of all materials, labour complete as per specifications. Specification No.KBS 4.6.2 (P.No.16, I.No.4.28 of PW,P&IWTD SR 2018-19)

New RCC Culverts	Sqm							
Wall Concrete								
		20	12.00		1.20	288.00		
		8	9.00		1.20	86.40		
Basic rate	358.00					**374.40**	379.48	**142077.31**
Item Weightage 6%	**21.48**							
Total	**379.48**							

Providing T.M.T. steel reinforcement for R.C.C. work including straightening, cutting, bending, binding, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200.TMT Bars Fe 500 (P.No.18, I.No.4.46.2 of PW, P&IWTD SR 2018-19)

TMT Steel	Tonne							
Cumulative Weightage for Drain			194.40	0.065	--	12.64		
Cumulative Weightage for Culverts			56.16	0.085	--	4.78		
Basic rate	**70966.00**					**17.42**	75223.96	**1310401.38**
Item Weightage 6%	**4257.96**							
Total	**75223.96**							

Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in charge. (Data Rate)

100mm Precast Slab	Sqm							
Main Cross Road		1	120.00	0.90		108.00		
Main Cross Road		1	140.00	0.90		126.00		
Cross Road		1	110.00	0.90		99.00		
		2	55.00	0.90		99.00		
Data Rate	**2337.00**					**432.00**	**2337.00**	**1009584.00**

Providing and fixing **RCC Precast cover slab of 250mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in charge. (Data Rate)

250mm PRE-CAST Slab	Sqm							
New RCC Culverts		5	12.00	1.20		**72.00**		
		2	9.00	1.20		**21.60**		

	Dutta Rate		5418.00					93.60	5418.00	507124.80
11	KSRRB MS00-53. Construction of embankment with approved material Gravel/Murrum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300-2 complete as per specifications, including cost of gravel / murrum, watering charges & compaction by vibratory roller to 95% of modified proctors density. MORTH Specification No. 305. (P.No.147, I.No.19.60 of PW,P&IWTD SR 2018-19)									
	For UGD Line Restoration	Cum								
	WA1311 Cross Road		1	120.00	1.00	0.30	36.00			
	W1289 Cross Road		1	110.00	1.00	0.30	33.00			
	Basic rate	325.00						69.00	344.50	23770.50
	Area Weightage 6%	19.50								
	Final Rate	344.50								
12	KSRB 2.6 : Providing and filling sand in foundation to required depth for sub soil treatment including watering ramming with all lead and lift complete as per specifications. specification. No. KBS 2.10.2. (P.No.7, I.No.2.13 of PW,P&IWTD SR 2018-19)									
	For UGD Line Restoration	Cum								
	WA1311 Cross Road		1	120.00	1.00	0.30	36.00			
	W1289 Cross Road		1	110.00	1.00	0.30	33.00			
	Basic rate	2060.00						69.00	2183.60	150668.40
	Area Weightage 6%	123.60								
	Final Rate	2183.60								
13	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/trap/basalt material, mixing by mix in place method by rotavator at OMC,spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision. (P.No.153, I.No.20.6 of PW,P&IWTD SR 2018-19)									
	For UGD Line Restoration	Cum								
	WA1311 Cross Road		1	120.00	1.00	0.15	18.00			
	W1289 Cross Road		1	110.00	1.00	0.15	16.50			
	Basic rate	1750.00						34.50	1855.00	63997.50
	Area Weightage 6%	105.00								
	Final Rate	1855.00								
14	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.155, I.No.20.18 of PW,P&IWTD SR 2018-19)									
	Road Portion	Cum								
	For UGD Line Restoration									
	WA1311 Cross Road		1	120.00	1.00	0.20	24.00			
	W1289 Cross Road		1	110.00	1.00	0.20	22.00			

Basic rate	68.00							
Area Weightage 6%	4.08							
Total	72.08							

Total Construction Cost-A	8849243.68
12% GST on KPWD 2018-19 items-B=Ax12%	1061909.24
Total Construction Cost Including GST Charges-C=A+B	9911152.93
Add 1% for PMC including GST Charges-D=Ax1%	88492.00
Sub Total-E=C+D	9999644.93
Miscellaneous and rounding off-F	355.07
Total G=E+F	10000000.00

Certificate.

1. The rates adopted based on the PWD SR, Bangalore circle for year 2018-19.
2. The provisions made in the estimate are necessary and essential.
3. The workspot was inspected and work is found to be necessary.
4. The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Engineer

Assistant Executive Engineer

Executive Engineer 26/5/2020

Technical Sanction
Accorded for Rs.100.00 lacs only
Head of A/C P.1878
CER NO :...22..... Dt:01.06.2020

TA

CE (YNK)

Administrative Approval
Accorded For Rs.100.00 lacs only
Head of A/C P.1878
CER NO :...17..... Dt:01/06/2020

E.E. (Project)